AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A heating control system for controlling energization to a heater of a gas sensor disposed in an exhaust pipe of an internal combustion engine, the heating control system comprising:

exhaust pipe water determining means for determining whether water droplets exist in the exhaust pipe when the engine is ~~started~~ re-started, based on the preceding operation of the engine; and

activation energization controlling means for performing activation energization control for energizing the gas sensor with electric power capable of heating the gas sensor to activation temperature ~~when~~ after a predetermined waiting period passes ~~since~~ following the engine ~~is stated~~ re-start if the exhaust pipe water determining means determines affirmatively.

2. (Currently Amended) The heating control system as in claim 1, wherein

the exhaust pipe water determining means ~~requires that~~ determines affirmatively when an elapsed period from the ~~last~~ preceding start to the last stop of the engine is shorter than a predetermined period ~~as at least one of requirements for the affirmative determination~~.

3. (Original) The heating control system as in claim 1, further comprising:

preheat energization controlling means for performing preheat energization control for energizing the gas sensor with lower electric power than in the activation energization control before the activation energization control if the exhaust pipe water determining means determines affirmatively.

4. (Currently Amended) A heating control system for controlling energization to a heater of a gas sensor disposed in an exhaust pipe of an internal combustion engine, the gas heating control system comprising:

water determining means for determining whether a water amount in the exhaust pipe is larger than a predetermined amount when the engine is re-started, based on an operation state of the engine following a preceding engine start; and

preheat energization controlling means for performing preheat energization control before activation energization control for energizing the gas sensor with electric power capable of heating the gas sensor to activation temperature, when the determining means determines that the water amount is larger than the predetermined amount,

wherein the preheat energization controlling means energizes the gas sensor with lower electric power in the preheat energization control than in the activation energization control during a predetermined period in which there is a possibility that water droplets exist in the exhaust pipe.

5. (Currently Amended) A heating control system for controlling energization to a heater of a gas sensor disposed in an exhaust pipe of an internal combustion engine, the heating control system comprising:

water determining means for determining whether a water amount in the exhaust pipe is larger than a predetermined amount when the engine is restarted, based on an operation state of the engine following a preceding engine start; and

preheat energization controlling means for performing preheat energization control before activation energization control for energizing the gas sensor with electric power capable of heating the gas sensor to activation temperature, when the determining means determines that the water amount is larger than the predetermined amount,

wherein the preheat energization controlling means energizes the gas sensor with lower electric power in the preheat energization control than in the activation

energization control so that water droplets in the gas sensor vaporize gradually and bumping of the water droplets is prevented.

6. (Canceled)

7. (Currently Amended) The heating control system as in ~~claim 6~~ claim 5, wherein

the ~~gas sensor~~ water determining means ~~requires~~ determines that the water amount is larger than the predetermined amount when a temperature of the heater at the time when the engine ~~is~~ was last stopped is lower than a predetermined temperature ~~as one of requirements for the affirmative determination~~.

8. (Previously Presented) The heating control system as in claim 3, wherein

the heating control system energizes the heater in duty cycle control and sets a smaller on-duty ratio in the preheat energization control than in the activation energization control.

9. (Previously Presented) The heating control system as in claim 3, wherein

the preheat energization controlling means feedback-controls the energization to the heater so that the temperature of the gas sensor is brought to a predetermined temperature.

10. (New) The heating control system as in claim 4, wherein the water determining means determines that the water amount in the exhaust pipe is larger than the predetermined amount when an elapsed period from the preceding start to the last stop of the engine is shorter than a predetermined period.

11. (New) The heating control system as in claim 5, wherein the water determining means determines that the water amount in the exhaust pipe is larger than

the predetermined amount when an elapsed period from the preceding start to the last stop of the engine is shorter than a predetermined period.